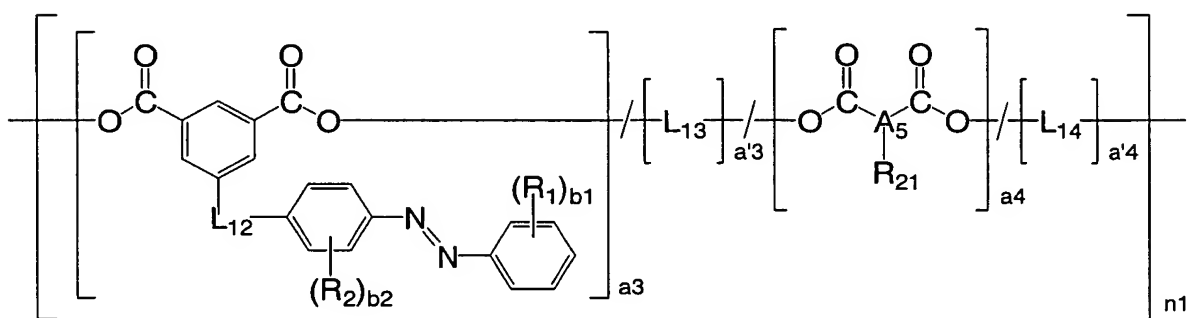


WHAT IS CLAIMED IS:

1. An optical recording medium comprising a recording layer which is formed into a predetermined shape with a thickness of 0.1 mm to 5 mm and which contains a polyester represented by the following formula (1):

Formula (1)



wherein  $R_1$  and  $R_2$  each independently represent a hydrogen atom or a substituent;  $b_1$  represents an integer from 0 to 5;  $b_2$  represents an integer from 0 to 4; when  $b_1$  is 2 or more, a plurality of  $R_1$  may be the same as or different from each other and the plurality of  $R_1$  may form a ring by being linked with each other; when  $b_2$  is 2 or more, a plurality of  $R_2$  may be the same as or different from each other and the plurality of  $R_2$  may form a ring by being linked with each other;  $R_{21}$  represents a hydrogen atom or a substituent;  $A_5$  represents a divalent linking group when  $R_{21}$  is a hydrogen atom, and  $A_5$  represents a trivalent linking group when  $R_{21}$  is a substituent;  $L_{12}$  to  $L_{14}$  each independently represent a

divalent linking group;  $a_3$  represents a number from 0.0001 to 1;  $a_4$  represents a number from 0 to 0.9999;  $a_3$  and  $a_4$  satisfy  $a_3 + a_4 = 1$ ;  $a'_3$  represents a number from 0 to 1; and  $a'_4$  represents a number from 0 to 1;  $a'_3$  and  $a'_4$  satisfy  $a'_3 + a'_4 = 1$ ; and  $n_1$  represents an integer from 4 to 2000.

2. The optical recording medium of claim 1, wherein  $R_{21}$  has a mesogen group linked to a flexible spacer group.

3. The optical recording medium of claim 1, wherein the recording layer is formed into a plate shape and is sandwiched between a pair of protective substrates.

4. A method of producing an optical recording medium in which a recording layer comprising a photo-responsive polymer material is sandwiched between a pair of protective substrates, the method comprising:

injection molding the photo-responsive polymer material into a plate shape having a thickness of 0.1 mm to 5 mm; and

hot-pressing the molded polymer material sandwiched between the pair of protective substrates so that the molded polymer material is fused with the pair of protective substrates to form an optical recording medium.

5. The method of claim 4, wherein the protective substrates

are transparent plastic substrates.

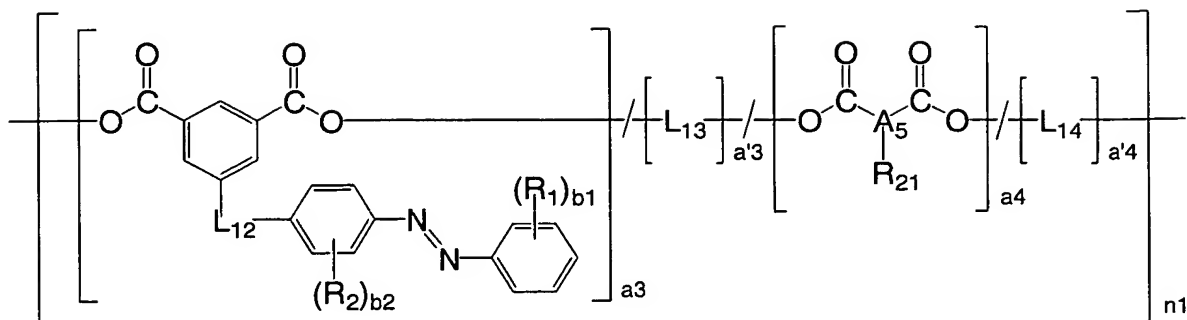
6. The method of claim 4, wherein the protective substrates have a Tg which is higher than a Tg of the recording layer.

7. The method of claim 4, wherein the recording layer is a photo-responsive material that exhibits photo-induced birefringence.

8. The method of claim 7, wherein the photo-responsive material comprises at least one selected from the group consisting of a polymer having a photo-isomerizable group on a side chain thereof, a polymer crystal having a photo-isomerizable group on a side chain thereof, and a polymer in which photo-isomerizable molecules are dispersed.

9. The method of claim 4, wherein the photo-responsive polymer material contains a polyester represented by the following formula (1):

Formula (1)



wherein  $\text{R}_1$  and  $\text{R}_2$  each independently represent a hydrogen atom or a substituent;  $b_1$  represents an integer from 0 to 5;  $b_2$  represents an integer from 0 to 4; when  $b_1$  is 2 or more, a plurality of  $\text{R}_1$  may be the same as or different from each other and the plurality of  $\text{R}_1$  may form a ring by being linked with each other; when  $b_2$  is 2 or more, a plurality of  $\text{R}_2$  may be the same as or different from each other and the plurality of  $\text{R}_2$  may form a ring by being linked with each other;  $\text{R}_{21}$  represents a hydrogen atom or a substituent;  $\text{A}_5$  represents a divalent linking group when  $\text{R}_{21}$  is a hydrogen atom, and  $\text{A}_5$  represents a trivalent linking group when  $\text{R}_{21}$  is a substituent;  $\text{L}_{12}$  to  $\text{L}_{14}$  each independently represent a divalent linking group;  $a_3$  represents a number from 0.0001 to 1;  $a_4$  represents a number from 0 to 0.9999;  $a_3$  and  $a_4$  satisfy  $a_3 + a_4 = 1$ ;  $a'_3$  represents a number from 0 to 1; and  $a'_4$  represents a number from 0 to 1;  $a'_3$  and  $a'_4$  satisfy  $a'_3 + a'_4 = 1$ ; and  $n_1$  represents an integer from 4 to 2000.

10. The method of claim 9, wherein  $R_{21}$  has a mesogen group linked to a flexible spacer group.

11. A method of producing an optical recording medium having a recording layer comprising a photo-responsive polymer material, the method comprising:

forming the photo-responsive polymer material into a plate shape having a thickness of 0.1 mm to 5 mm by hot-pressing; and

using the formed polymer material to produce an optical recording medium.

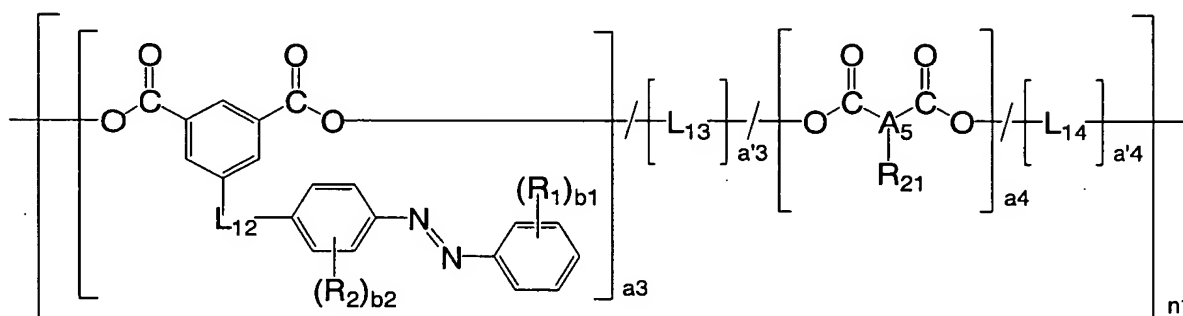
12. The method of claim 11, wherein the recording layer comprises a photo-responsive material that exhibits photo-induced birefringence.

13. The method of claim 12, wherein the photo-responsive material comprises at least one selected from the group consisting of a polymer having a photo-isomerizable group on a side chain thereof, a polymer crystal having a photo-isomerizable group on a side chain thereof, and a polymer in which photo-isomerizable molecules are dispersed.

14. The method of claim 11, wherein the optical recording medium further comprises a protective layer or an antireflection layer.

15. The method of claim 11, wherein the photo-responsive polymer material contains a polyester represented by the following formula (1):

Formula (1)



wherein  $R_1$  and  $R_2$  each independently represent a hydrogen atom or a substituent;  $b_1$  represents an integer from 0 to 5;  $b_2$  represents an integer from 0 to 4; when  $b_1$  is 2 or more, a plurality of  $R_1$  may be the same as or different from each other and the plurality of  $R_1$  may form a ring by being linked with each other; when  $b_2$  is 2 or more, a plurality of  $R_2$  may be the same as or different from each other and the plurality of  $R_2$  may form a ring by being linked with each other;  $R_{21}$  represents a hydrogen atom or a substituent;  $A_5$  represents a divalent linking group when  $R_{21}$  is a hydrogen atom, and  $A_5$  represents a trivalent linking group when  $R_{21}$  is a substituent;  $L_{12}$  to  $L_{14}$  each independently represent a divalent linking group;  $a_3$  represents a number from 0.0001 to 1;  $a_4$  represents a number from 0 to 0.9999;  $a_3$  and  $a_4$  satisfy

$a_3 + a_4 = 1$ ;  $a'_3$  represents a number from 0 to 1; and  $a'_4$  represents a number from 0 to 1;  $a'_3$  and  $a'_4$  satisfy  $a'_3 + a'_4 = 1$ ; and  $n_1$  represents an integer from 4 to 2000.

16. The method of claim 15, wherein  $R_{2,1}$  has a mesogen group linked to a flexible spacer group.